

Overview of Corals and Hardbottom Resources in Southeast Florida

Contents (Unit 1, file 2 of 3):

- Introduction
- General Biology & Ecology of SE Florida Reefs
 - Threats to SE Florida Reefs
- Identification Resources for SE Florida Corals (cont.)
 - Nearshore Hardbottom Resources

Other Common Corals, Not Threatened, but All Protected under State & Federal Rules* (*: Units 2 & 3)



Great star coral
Montastraea cavernosa



Mustard hill coral
Porites astreoides



Smooth star coral
Solenastrea bournoni

Detailed ID Slides for These & Other Common Species Follow



Grooved brain coral
Diploria labyrinthiformis



Maze coral
Meandrina meandrites



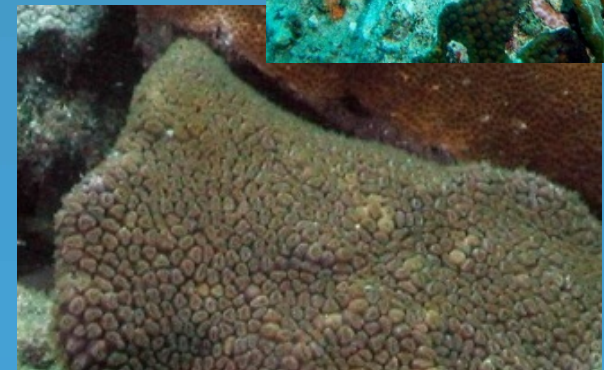
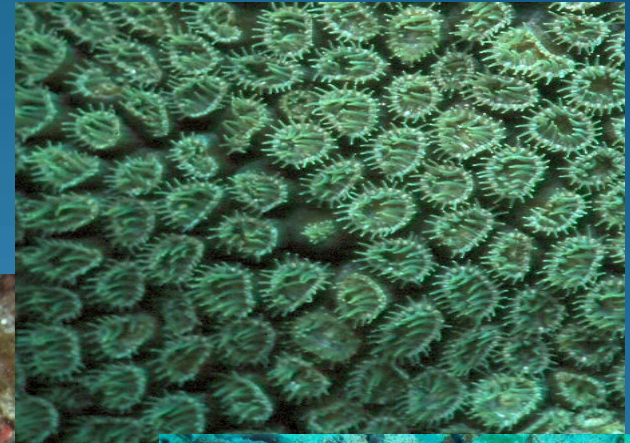
Elliptical star coral
Dichocoenia stokesii

Montastraea cavernosa / **great star coral**

Reef Coral / Humann: pg #115
Common to abundant South FL

- Size = 2 – 8'
- *M. cavernosa* has the largest polyps of the genus *Montastrea*. Easy to identify due to large polyps.
- Can appear as yellow, blue, green, color varies
- Could be confused with the colonial zoanthid *Palythoa*, which encrusts over dead corals, but *Palythoa* forms a mat (not a hard colony), and has smaller polyps.
- **TO REMEMBER:** has the largest polyps – like caverns - *cavernosa*

Miami-Dade	confirmed	abundant
Broward	confirmed	16%
Palm Beach	confirmed	very common
Martin	confirmed	?





Porites asteroides / **mustard hill coral**

Reef Coral / Humann: pg #121

Abundant to common FL

- Size = 6" - 2'
- One of the most common species in our region
- TO REMEMBER: often mustard yellow or brown and size of ant hill (mustard hill coral)

Miami-Dade	confirmed	abundant
Broward	confirmed	12%
Palm Beach	confirmed	very common
Martin	confirmed	?



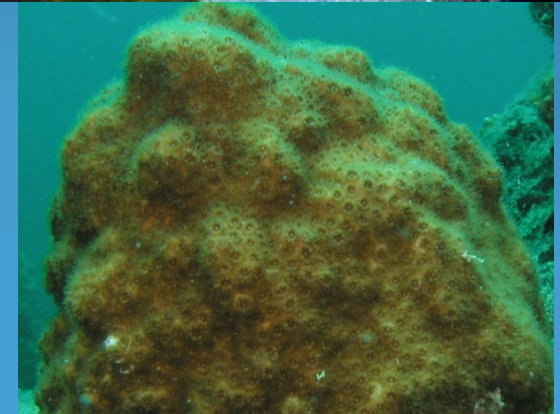
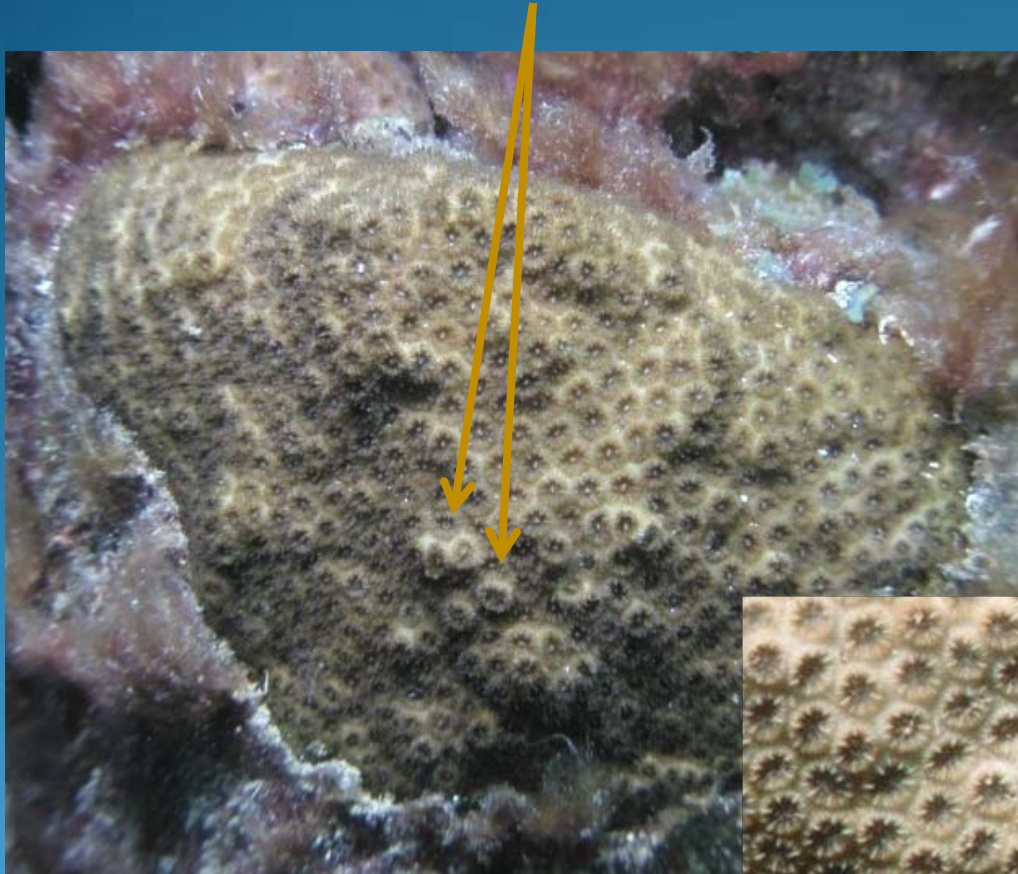


Solenastrea bournoni / **smooth star coral**

Reef Coral / Humann: pg #117
Common to occasional South FL

- Size = 4 - 18"
- Corallite rims protrude noticeably, giving a blistered appearance

Miami-Dade	confirmed	common
Broward	confirmed	4%
Palm Beach	confirmed	fairly common
Martin	confirmed	?

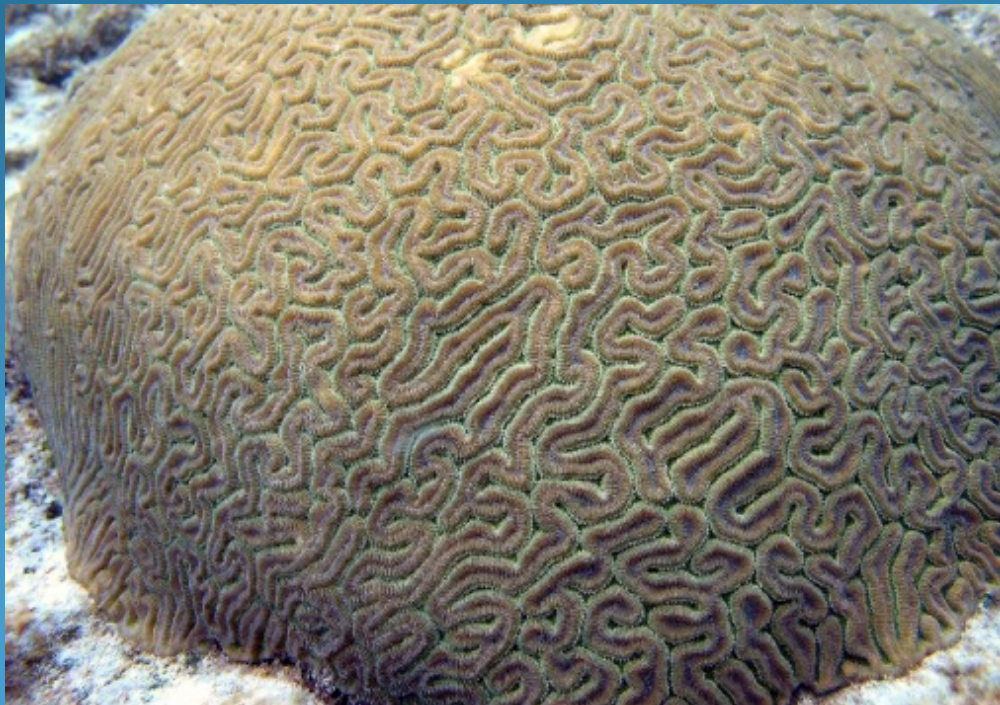
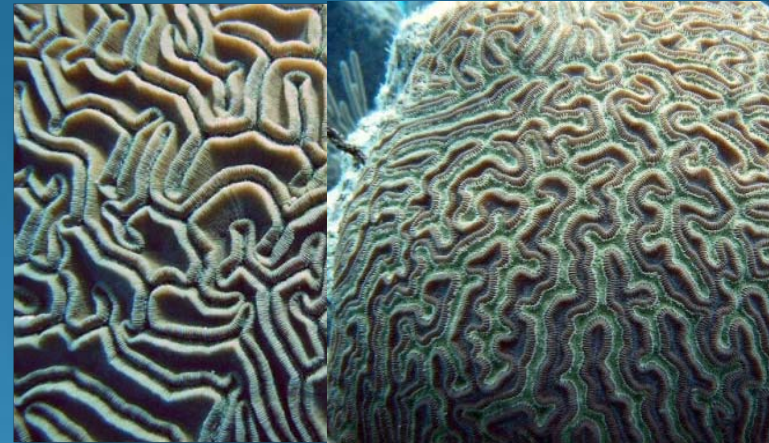




Diploria labyrinthiformis/ **grooved brain coral**

- Size = 1 – 4'
- Deep grooves on top of the ridges (labyrinths)
- Colonies form hemispherical heads
- TO REMEMBER: Labyrinth – the only brain coral with a labyrinth / groove on the ridges.

Miami-Dade	confirmed	common
Broward	confirmed	<1%
Palm Beach	confirmed	?
Martin	not confirmed	?





Meandrina meandrites / maze coral

Reef Coral / Humann: pg #129
Common to occasional South FL

- Size = 1 - 3'
- Relatively easy species to ID
- Doesn't really look like anything else out there
- TO REMEMBER: meandering maze

Miami-Dade	confirmed	common
Broward	confirmed	2%
Palm Beach	confirmed	very common
Martin	confirmed	?



Dichocoenia stokesii / elliptical star coral

Reef Coral / Humann: pg #119
Occasional South FL

- Size = 4 – 15"
- Protruding corallites (up to 1/4")
- Colonies typically form rounded heads
- Meandroid (elliptical) long calices
- Corallites protrude up to 1/4" and are usually elliptical or circular and occasionally Y shaped

Miami-Dade	confirmed	common
Broward	confirmed	2%
Palm Beach	confirmed	?
Martin	confirmed	?



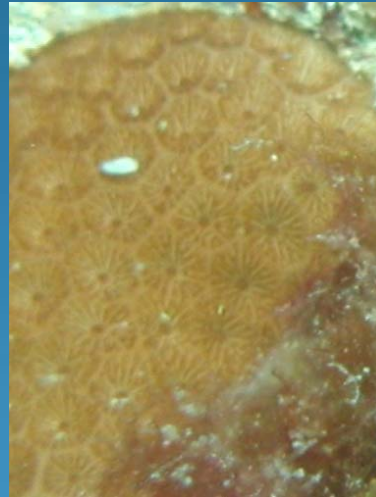
Siderastrea siderea / massive starlet coral

Reef Coral / Humann: pg #123
Common FL

- Size = 1 - 6' (to six feet)
- Probably the most common species in our area
- Easy to confuse recruits (new colonies) with *S. radians*

Miami-Dade	confirmed	abundant
Broward	confirmed	25%
Palm Beach	confirmed	very common
Martin	confirmed	?

S. radians vs. *S. siderea*

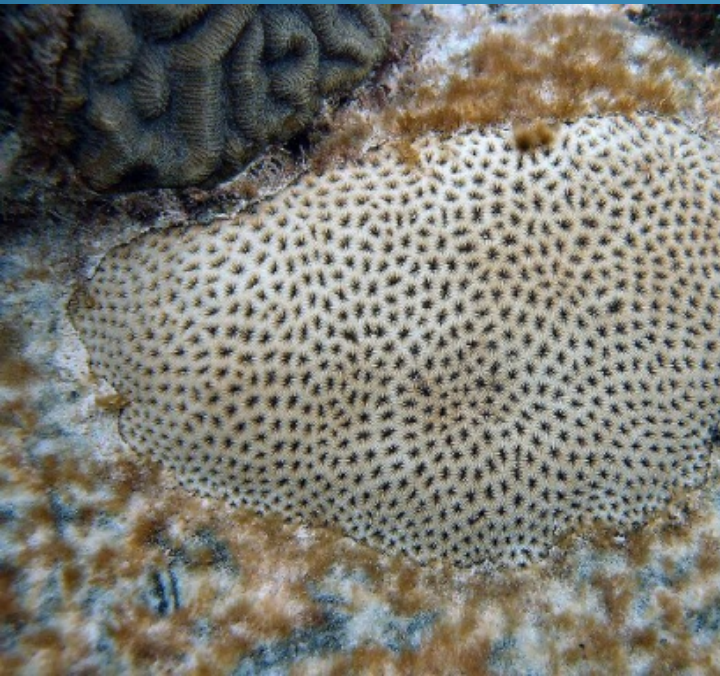




Siderastrea radians / **lesser starlet coral**

- Size = 4 - 12"
- Lighter color and less common than *S. siderea*
- Colonies small, often flat shaped
- Polyps darker than colony
- Colony pale white (looks bleached) with dark polyps
- Irregular corallites (square, polygonal, triangular)
- **Easily confused with: *S. siderea***

Miami-Dade	confirmed	abundant
Broward	confirmed	8%
Palm Beach	confirmed	very common
Martin	confirmed	8%



S. radians vs. *S. siderea*

Montastraea annularis – *forma faveolata* (boulder) mountainous star coral

Reef Coral / Humann: pg #113
Common to abundant South FL

Miami-Dade	confirmed	Abundant
Broward	confirmed	2%
Palm Beach	confirmed	?
Martin	confirmed	?

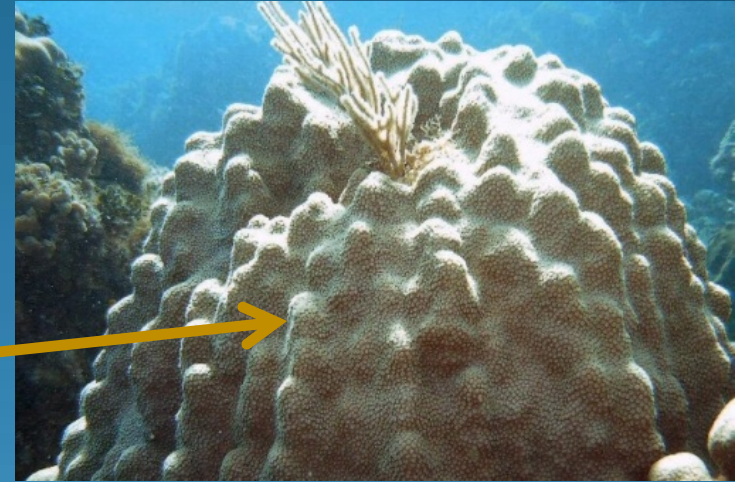
- Size = 1 - 10' (to 15')
- Can have ribs (rows of vertical ribs on colony)
- Bumps (like *M. franksii*, but larger and with pigment)
- Oldest local colony = 314 years old (15' tall) off of Ft. Lauderdale

• TO REMEMBER: look for

vertical ribs

and/or bumps

and/or mountainous growth

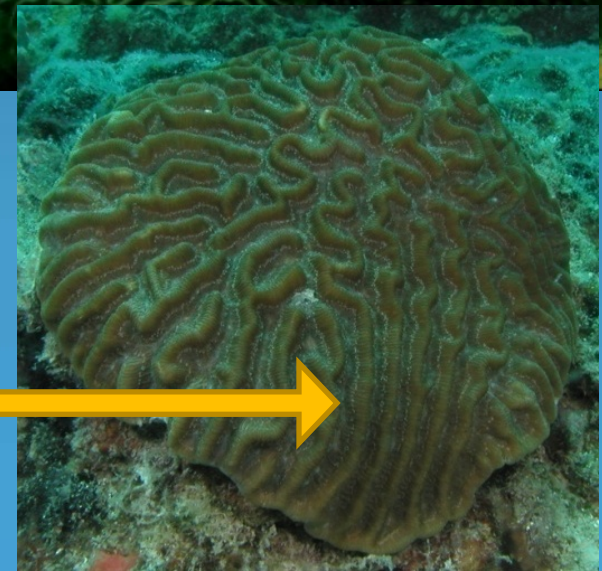




Diploria strigosa/ **symmetrical brain coral**

- Size = 6" - 6'
- Horizontal or vertical (parallel) ridges near base
- Can be confused with other brain corals, but:
 - Colpophyllia natans* - has thicker ridges
 - D. labrinthyformis* - has labyrinth (groove in ridges)
 - D. clivosa* - has knobs

Miami-Dade	confirmed	common
Broward	confirmed	<1%
Palm Beach	confirmed	common
Martin	confirmed	?



Eusmilia fastigiata/ smooth flower coral

Reef Coral / Humann: pg #163
Common to occasional FL

- Size = $\frac{1}{2}'$ – $2\frac{1}{2}'$
- Polyps = $\frac{3}{4}''$ – $1\frac{1}{4}''$
- Polyps on long stalks
- Corallites round to oval
- Easy to identify
- TO REMEMBER: You smell (*Eusmilia*) the flowers (bouquet - smooth flower coral)

Miami-Dade	confirmed	common
Broward	confirmed	<1%
Palm Beach	confirmed	common
Martin	not confirmed	?

